

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/996,308

REMARKS

Claims 1-30 are all the claims pending in the application. Independent claims 1, 10, 15 and 18-22 are being amended. New claims 23-30 are being added. No new matter has been introduced.

Claims Rejections – 35 U.S.C. §103 - Claims 1-9

The Examiner has rejected claims 1-9 under 35 U.S.C. §103 as being allegedly unpatentable over Raab et al. (U.S. patent No. 5,751,967) in view of Schumiacher (U.S. patent No. 6,735,765) and further in view of Pothapragada et al. (U.S. patent No. 6,389,432). Applicant respectfully traverses this rejection in view of Applicant's amendments to independent claim 1 and further in view of the following arguments.

One of the aspects of the present invention is an ability of the inventive system to map not only one VLAN but a plurality of VLANs to one or more virtual volumes as the group (1:M and N:M configuration). A server belonging to one of the VLANs can detect and access the virtual volumes in the same group as described in paragraphs [0042] and [0043] of the specification. Thus, claim 1 has been amended to recite: (1) at least one group; (2) mapping of a plurality of segments of a virtual local area network (VLAN) connectable by the network interface to the at least one group; (3) mapping of a second plurality of virtual volumes of the at least one storage device to the at least one group; and (4) a specific network entity associated with one of the plurality of segments is being allowed to access the second plurality of virtual volumes within the same group. Applicant respectfully submits that neither Raab et al. nor Schumacher discloses the aforesaid method for mapping the plurality of VLAN segments to the

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plurality of virtual volumes as a group, as recited in the amended claim 1. The third applied reference, Pothapragada only discloses virtual volume creation and, therefore, also does not teach or suggest the aforesaid features.

In more detail, Raab et al. discloses a method and apparatus for automatically configuring a network device to support a virtual network. In the Office Action, the Examiner reads the claimed virtual volume on the mass storage device 207 of the network computing engine (NCE) of the system of Raab et al. In the previous submissions, Applicant has argued that the mass storage device 207 is not a virtual volume. Applicant continues to maintain this position and refer the Examiner to arguments contained in Applicant's response filed on January 22, 2007. Even assuming for the purposes of argument only that Raab et al. taught the claimed plurality of virtual volumes, Raab et al. still fails to teach or suggest at least the following limitations of the amended claim 1, including: (1) at least one group; (2) mapping of a plurality of segments of a virtual local area network (VLAN) connectable by the network interface to the at least one group; (3) mapping of a second plurality of virtual volumes of the at least one storage device to the at least one group; and (4) a specific network entity associated with one of the plurality of segments is being allowed to access the second plurality of virtual volumes within the same group.

The second applied reference, Schumacher, teaches a system for sharing data between operating systems. Specifically, Schumacher discloses a method of sharing data between two operating systems using a common virtual volume provided in a data storage device. The provided virtual volume is accessible by a source operating system and a target operating system

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and is formatted by the source operating system in a format compatible with the target operating system so that the source operating system can generate data within the provided virtual volume for direct access by the target operating system, see Schumacher, col. 9, lines 15-28. On the other hand, Schumacher fails to teach or suggest at least the following limitations of amended claim 1: (1) at least one group; (2) mapping of a plurality of segments of a virtual local area network (VLAN) connectable by the network interface to the at least one group; (3) mapping of a second plurality of virtual volumes of the at least one storage device to the at least one group; and (4) a specific network entity associated with one of the plurality of segments is being allowed to access the second plurality of virtual volumes within the same group.

The third applied reference, Pothapragada et al. discloses creating a storage volume within a storage area network in accordance with specific characteristics specified in the volume allocation request, see fig. 1, col. 6, line 64 to col. 7, line 55 and col. 8, lines 35-51. Contrary to the Examiner's bold assertion, Pothapragada et al. does not teach or suggest a system wherein only a specific network entity is allowed to access a specific virtual volume. The create function referred to by the Examiner only determined whether the storage system has resources available to fulfill the storage allocation request and does not perform the claimed access control function. Thus, Pothapragada et al. also fails to teach or suggest any of the limitations (1)-(4) identified by Applicant hereinabove.

For all the foregoing reasons, Raab et al., Schumacher and/or Pothapragada et al., or any combination thereof fail to teach or suggest the claimed features of the present invention specifically recited in the amended claim 1, including (1) at least one group; (2) mapping of a

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plurality of segments of a virtual local area network (VLAN) connectable by the network interface to the at least one group; (3) mapping of a second plurality of virtual volumes of the at least one storage device to the at least one group; and (4) a specific network entity associated with one of the plurality of segments is being allowed to access the second plurality of virtual volumes within the same group. Thus, the amended claim 1 is patentable over Raab et al., Schumacher and/or Pothapragada et al.

With respect to rejection of dependent claims 2-9, while continuing to traverse the Examiner's characterization of the teachings of Raab et al., Schumacher and Pothapragada et al., used by the Examiner in rejecting those claims, Applicant respectfully submits that the rejection of those claims has been rendered moot by virtue of Applicant's amendments to the parent independent claim 1 and that these claims are patentable by definition, due to their dependency upon the patentable parent claim 1. Therefore, claims 2-9 are also patentable.

Claims 10-22

The Examiner has rejected claims 10-22 under 35 U.S.C. §103 as being allegedly unpatentable over Raab et al. (U.S. patent No. 5,751,967) in view of Schumacher (U.S. patent No. 6,735,765). Applicant respectfully traverses this rejection in view of Applicant's amendments to independent claims 10, 15 and 18-22 and further in view of the following arguments.

Specifically, the aforesaid independent claims 10, 15 and 18-22 have been amended substantially similarly to claim 1 and, therefore, the above patentability arguments advanced by Applicant with respect to independent claim 1 equally apply to those claims as well. Therefore,

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claims 10, 15 and 18-22 are patentable over Raab et al. and/or Schumacher or any combination thereof.

With respect to rejection of dependent claims 11-14 and 16-17, while continuing to traverse the Examiner's characterization of the teachings of Raab et al. and Schumacher used by the Examiner in rejecting those claims, Applicant respectfully submits that the rejection of those claims has been rendered moot by virtue of Applicant's amendments to the parent independent claims 10 and 15 and that these claims are patentable by definition, due to their dependency upon the respective patentable parent claims . Therefore, claims 11-14 and 16-17 are also patentable.

New Claims 23-30

New claims 23-30 have been added to recite a feature of the invention, wherein the group comprises a file system. This feature of the invention is not taught or suggested by any of the applied prior art references. Thus, new claims 23-30 are patentable over the cited art. In addition, new claims 23-30 are also patentable due to their dependency upon respective patentable independent claims 1, 10, 15 and 18-22.

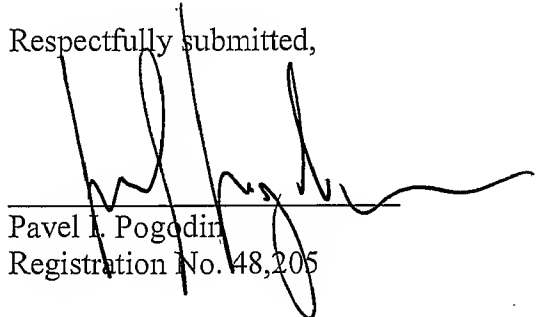
Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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